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United States Department of the Interior

FISH AND WILDLIFE SERVICE

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Cliff Clark
U.S. Department of Energy
PO Box 550, Mailstop A3-04
Richland, Washington 99352

Dear Mr. Clark,

We appreciate the opportunity to participate in previous workshops and provide comments on the draft Five-Year Review Report of the Hanford Site prepared by the Department of Energy (DOE) under requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The U.S. Fish and Wildlife Service (Service) and DOE have numerous joint interests at Hanford including authorities under the Hanford Reach National Monument, management of natural resources for large portions of the site as described in the Service's draft Comprehensive Conservation Plan (CCP), and trusteeship for various natural resources under CERCLA. We look forward to continuing to work with the DOE on multiple issues of joint interest and responsibility. We have several general comments and comments of a more specific nature.

General Comments:

The Service looks forward to working with the DOE on CERCLA related issues for both past and future actions. The establishment of the Hanford Reach National Monument in June 2000 provided both our agencies with increased coordination and protective responsibilities for both cultural and natural resources. The CERCLA process should be coordinated with both our agencies' land management/stewardship responsibilities as we provide for appropriate use of Hanford lands. The CCP proposes to modify public and Tribal use patterns and we believe that additional information may be needed to ensure protection of human health and the environment. Additionally, we are very interested in working with DOE on habitat improvement projects either as part of cleanup through mitigation or as restoration through the damage assessment process of CERCLA. In addition to our statutory role in these processes, the Service is interested in providing our on-the-ground restoration experience on a cost reimbursable basis.

The Hanford Site is large and complex, which has lead the Tri-Parties to divide the Site into smaller more manageable sections. The Hanford Site has been listed as multiple CERCLA sites (i.e., 100, 200, 300, etc. areas) and each of the areas further subdivided into operable units. This makes sense from an engineering and logistical standpoint. However, just as the Columbia River

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runs through the entire Hanford Site, we know that contaminants are migrating between sites, and biological organisms including fish, birds, large mammals, etc., readily move among the various areas. We believe it is necessary to integrate the ecological risk assessments in a holistic manner in order to accurately evaluate impacts to natural resources and determine appropriate cleanup alternatives. Contaminants from multiple waste sites and areas have been mobilized resulting in groundwater contamination that in some cases is being released to the Columbia River. A specific constituent (i.e., uranium, chromium, strontium -90, PCBs, etc.) at a single site may not be a risk, but in combination could threaten young of the year salmonids moving down the Columbia River. Because there are multiple sites and multiple constituents that can additively or synergistically adversely affect natural resources, the integration of the approximately 50 different risk assessments need to be considered. These integrated risk assessments could influence and potentially modify cleanup decisions. We recommend that a sitewide ecological risk assessment be completed. We also support the re-establishment of a multi-disciplinary, multi-agency work group to develop a strategy for integration.

The Five-Year Review Report concludes that the remedies selected thus far are, or will be, protective of human health and the environment. We believe this conclusion is premature because the human health and ecological risk assessments for the site have yet to be completed. It is our understanding that the purpose of the risk assessments is to determine the cleanup levels that will be protective. We recommend that the decision on the protectiveness of the cleanup be placed in abeyance until the risk assessment process has been conducted.

In addition to remediation, CERCLA also provides for the restoration of natural resources injured as a result of releases of hazardous substances. In our experience, there are efficiencies to be gained by coordinating remedial and natural resource damage assessment (NRDA) actions. The Hanford Natural Resource Trustee Council (Council) has been established to promote the coordination of trustee actions for the cleanup and the restoration of natural resources portions of CERCLA. We suggest that DOE develop a NRDA strategy that complements the cleanup decisions for the Hanford Site, and work together with our Council co-trustees to meet the joint restoration responsibilities of CERCLA.

As part of the cleanup recommendations being selected by the Tri-Party agencies, institutional controls have been a mechanism used to protect the public from exposure and effects of contaminants. The Service currently manages a large portion of the Hanford Site that is under National Monument status, in cooperation with the DOE. We recommend that long-term plans, strategies, and budgeting be developed by DOE to ensure that institutional controls are effective far into the future to address the contaminants left in place. Adverse effects to biota may continue when contaminants are left in place, leading to continuing injury. We recommend that this factor be fully considered in any cleanup decisions made. Additional short-term cleanup costs may be more cost effective than long term restoration costs associated with continuing injury. We are interested in working with DOE in planning for the long-term success of cleanup and restoration efforts including institutional controls.

The increase of technical environmentally-related knowledge is ongoing, which inevitably leads to improvements in laws and regulations for better protection of natural resources. For instance,

we understand that the Washington State standards for uranium have been recently revised. We recommend that future Records of Decision include reopeners to address potential future State and/or Federal regulation changes.

Specific Comments:

Executive Summary, page iii, second paragraph: It is stated that the Hanford Site was divided into four sites (100, 200, 300, and 1100). In order to clarify this issue, we suggest that you explain the status of the Hanford Site outside these four areas such as the 400 area, 600 area, Energy Northwest, etc.

Executive Summary, page iii, last paragraph (and elsewhere in the document): Two exceptions are identified where cleanup is not meeting protective standards (uranium in the 300 area, and strontium-90 at 100-NR-2). Although identified as problematical in the Issues and Actions table, we suggest that chromium in several 100 area locations also be identified as an exception because cleanup criteria are currently not being met.

Ecological Risk Assessment Process: Public and Tribal consumptive use of natural resources will increase as cleanup actions are implemented and successfully completed. We recommend that all risk assessments include a specific section evaluating consumptive use of natural resources and potential risks for public and Tribal use scenarios

100 Area: We fully support increased efforts by DOE to include new ideas and technologies to address contaminant release issues to the Columbia River. We encourage DOE to expand efforts to identify chromium sources and to permanently eliminate all releases of oil and hazardous substances to the Columbia River.

Recent studies and negotiations associated with Priest Rapids Dam operations indicate that Columbia River water levels will continue to fluctuate in the vicinity of the 100 Area as a result of hydroelectric generation. We recommend that the effect of water level fluctuations on the mobilization of contaminants left in the vadose zone in the 100 Area be further evaluated. In our opinion, the remedy is not protective of the environment without further evaluation of this issue. If the water level fluctuations will result in continuing contaminant releases, we suggest that full removal of contaminated soil be considered to protect human health and the environment.

200 Area: We have been participating with DOE, contractors, the Environmental Protection Agency (EPA), and co-trustees on an ecological risk assessment (ERA) for the entire 200 Area. We appreciate the opportunity to provide technical assistance; however, we suggest that the number of biological samples be increased for this effort. The ERA has been centralized for all terrestrial evaluation efforts in the 200 Area, with other Remedial Investigation/Feasibility Study (RI/FS) work being done at the operable unit subsection level. The funding allocated for the ERA in comparison to all the other RI/FS work on the 200 Area seems disproportionately small. This is especially true for biological data where there is relatively little information. For instance, it is our understanding that only two samples can be afforded to address potential spraying of PCB-contaminated oil on many miles of roads for dust control. We recommend that

additional funding for a variety of sampling be increased, and we would be happy to work with DOE, the contractors, and the Trustees to further address this issue.

The Service foresees the potential for refuge workers to be located throughout Hanford in the future, even if that future is many years from now. We request that an on-site, resident refuge worker scenario be used for all future human health risk assessments.

It is our understanding that DOE is using the "analogous site" methodology for sampling of waste sites in the 200 Area. This method assumes that some grouping of sites have similar constituents and other parameters, hence only a single site in the group is sampled and it is assumed the other sites will be identical. We have problems with this methodology because the waste sites at Hanford have many complexities and undocumented releases and therefore potential for variability. There must be a clearly developed technique and documented data to ascertain site variability before the analogous site methodology should be used. Our experience with analogous sampling on the North Slope and ALE indicates that waste sites in the same area can vary considerably in constituents and concentrations.

1100 Area:

Page 4.1 Horn Rapids Landfill (1100-EM-1): We agree that the contaminant levels are below the allowable maximum contaminant level and that a modification of groundwater monitoring is warranted. We suggest that monitoring continue at a reduced number of wells on at least an annual basis.

Page 4.2, lines 8-10: The ALE headquarters mentioned here is no longer in use. We recommend ending the sentence after the word "center" and adding the sentence: "These buildings were formerly used as the ALE headquarters but are now scheduled for cleanup, demolition, and removal."

Page 4.2, 4.3.1: We appreciate the additional cleanup completed at the Horseshoe Landfill based on monitoring data collected between 1998 and 2003. We also support the decision to reduce the DDT/DDE/DDD cleanup level. We are interested in the methodology used to support the reduction in the cleanup level. We would be interested in conducting any additional habitat restoration and monitoring at Horseshoe Landfill, or other areas on the Hanford Site, on a cost-reimbursable basis.

Monitoring: The Service's comments during the first Five-Year Review at the Hanford Site included recommendations for monitoring in the 1100 and North Slope areas. These recommendations were not addressed. Post remediation monitoring is a basic premise in CERCLA and EPA guidance. Without this monitoring data, we believe the remedy is not protective of the environment. CERCLA requires post-cleanup monitoring to ensure that remedial actions are appropriate and working properly. The Service continues to recommend that specific monitoring be conducted for the technical assistance areas previously identified by the Service on the North Slope and ALE. As demonstrated at Horseshoe Landfill, monitoring is helpful to document ongoing issues of concern for subsequent action. We recommend that biological monitoring be the main method used to reduce costs and directly address potential effect questions. We look forward to a collaborative effort.

We appreciate the excellent working relationship between the DOE and the Service and look forward to continuing joint efforts at Hanford pertaining to cleanup, land and natural resource management, and habitat restoration. If you have any questions or would like to discuss issues raised in this letter, please contact Don Steffeck, Chief of our Division of Natural Resource Conservation in the Regional Office at (503) 231-6223, and/or Greg Hughes, Refuge Manager, Hanford Reach National Monument/Saddle Mountain National Wildlife Refuge, at (509) 371-1801.

Sincerely,

Acting Regional Director

cc:
Hanford Natural Resource Trustee Council Members
UCFWO (Hansen)
Hanford Reach NM/Saddle Mountain NWR (Hughes)
Sol-WO (Hall)